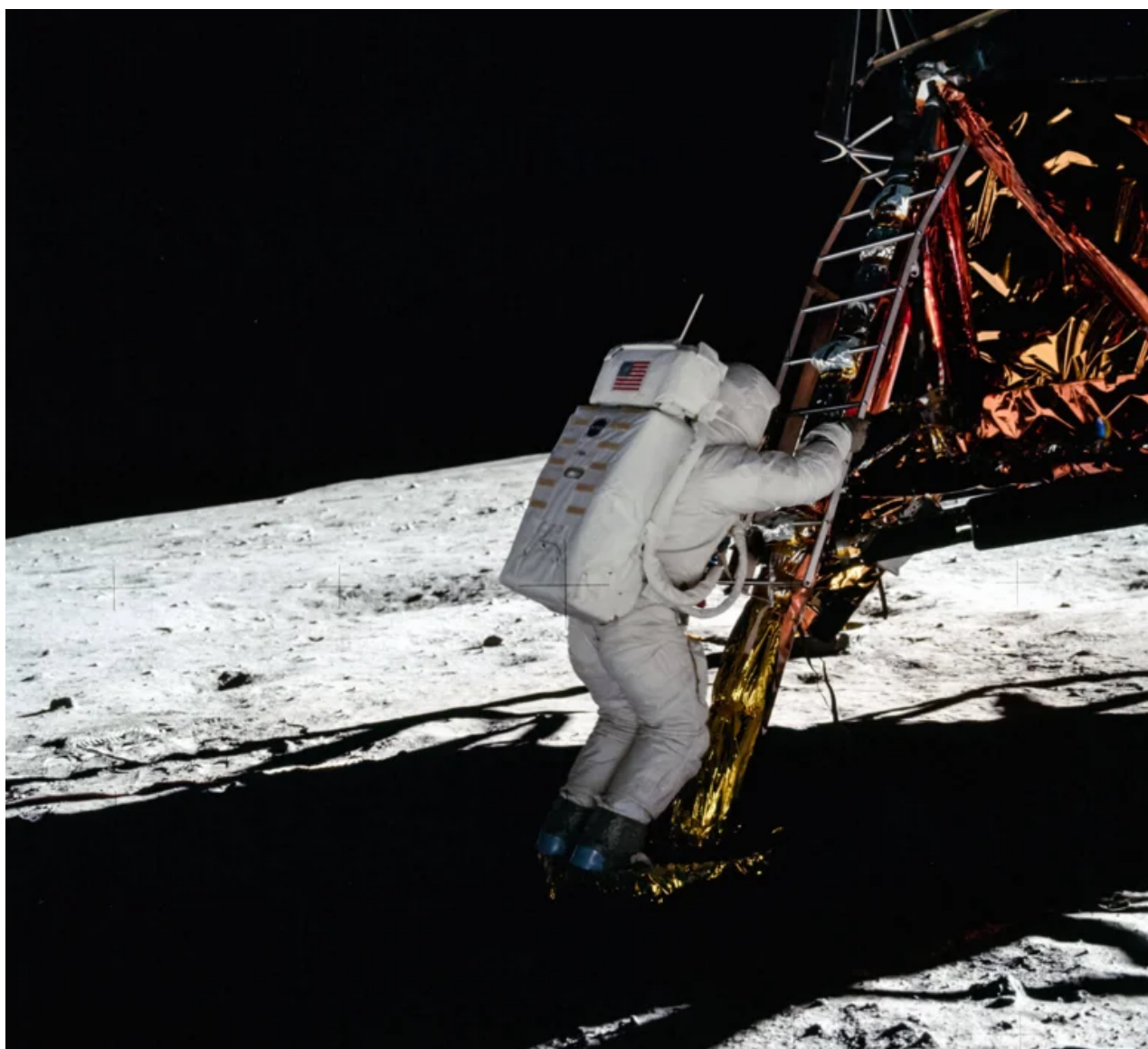


## 20. Разушители мифов. Если фальсифицировать, то по-крупному!

8-11 minutes

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In the previous article "[Why did the mythbusters go for falsification?](#)" we talked about the fact that two characters of the famous TV show tried to repeat the "lunar" photo on mock-ups ("Astronaut in the shadow of the lunar module") and prove that in the shadow of the astronaut's ladder it would be clearly visible, as in the photo in the Apollo 11 mission ".



The astronaut is clearly visible in the shadows. (Apollo 11)

But as soon as they put the astronaut's pupa near the model of the lunar module and illuminated the area with a searchlight (like the sun), the astronaut completely disappeared into the shadows.



The astronaut stands at the left pillar. He is almost invisible, he is completely drowned in the shadows.

And in order to prove that everything is clearly visible in the shadows, the "myth destroyers" went for falsification. Instead of one searchlight imitating the sun, additional lighting devices were turned on in the pavilion: fluorescent lamps under the ceiling. In addition, claiming that they cover the entire room around with black paper (as if creating a black space around), in fact, they closed three walls, and even then - only up to half in height. Part of the fourth wall was not closed at all - there was a film crew - after all, the two presenters had to be filmed during the experiment.



Many bright objects are visible above the black paper. The fourth wall (farthest from us) is closed only by a third. The right side of the fourth wall did not close at all.

Therefore, there was a lot of light in the room, reflected not only from the light boxes on the shelves, but also from the people around. Jamie in a bright white shirt was generally standing next to the lunar module. And the lighted ceiling remained open. In the language of "mythbreakers" it was called - to eliminate all the scattered light, leaving only one source of light - an artificial "sun". And with such a mass of scattered light, the "lunar frame" was taken. But, apparently, even these tricks did not give the desired result. From the first take, it was not possible to "destroy the myth" - the "movie" did not work, the astronaut fell into the shadows. Therefore, the most important points had to be re-shot, changing the initial data. The "lunar surface" was changed: the initially dark surface was replaced with a light one,

I managed to count three options. Two options were with photography, and the third option was for a diversion. I have no doubts about what was being reshomed. The completely illogical actions of the presenters in one place lead me to this conclusion. How would you treat a person if, having decided to paint the floor in the room, he first brought in a desk and a bed, and then, in order to apply a layer of paint under the table and bed, he would crawl on his bellies and on all fours to reach hard-to-reach places ? Do intelligent people do this? But the "mythbreakers" acted just like that.

Before shooting, they covered the surface of the improvised "Moon" with cement, installed a "lunar module", "astronaut", a camera on it, and only after that they began to sprinkle the surface with dark powder, climbing on the table, or climbing with brushes and hands into hard-to-reach places.



The presenters cover the light surface with a dark composition.





They put their hand into hard-to-reach places.

So that you can notice how the "lunar soil" changes several times, we will now sequentially analyze the process of preparing the "lunar surface". "Mythbusters" at first explained for a long time that the soil of the Moon was very dark, measured it with a bright meter, counted something on a calculator, and then before shooting - once - and quickly replaced it with a obviously lighter one.

They said in words, as it were, the right thing - that the lunar sand is visually very dark, the "albedo" of the lunar soil is 7-10%, and even with the help of a bright meter, a material with the same low reflection coefficient was selected. And then, without saying a word, they replaced all the dark lunar soil with a light one.

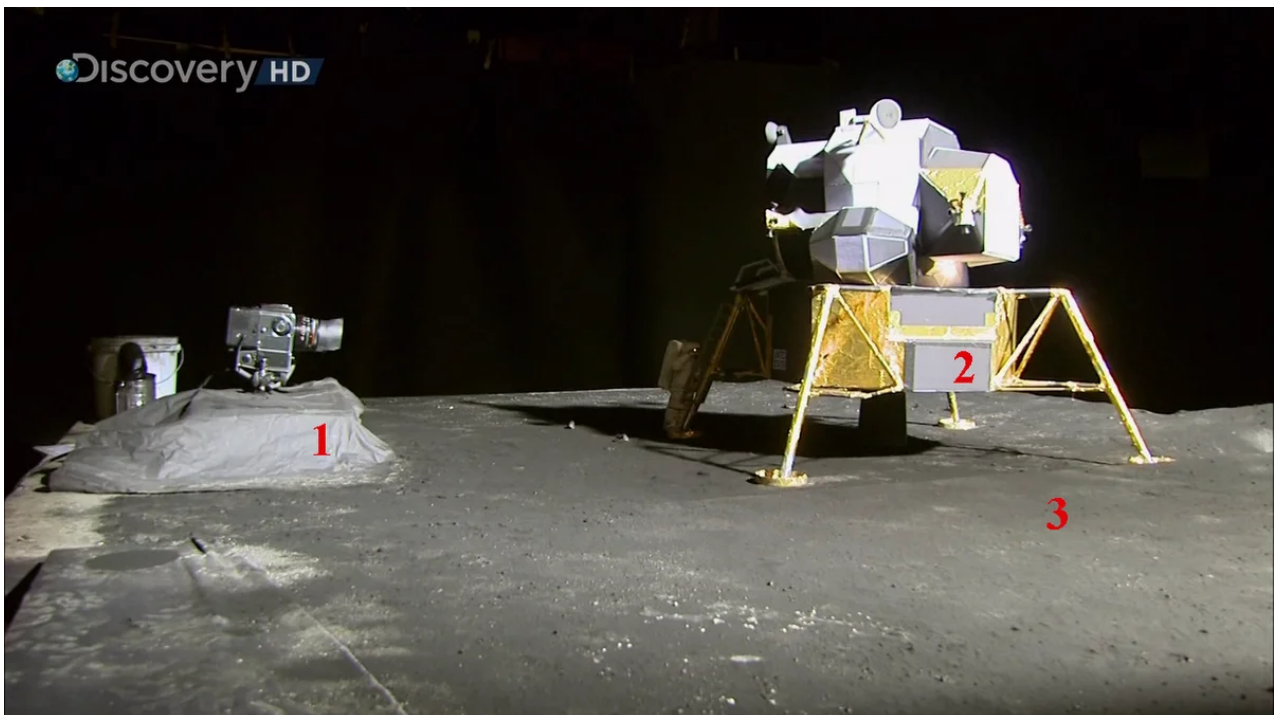
First, they show us how by mixing Portland cement with black coal dust, they got 8% reflection. This was the beginning.





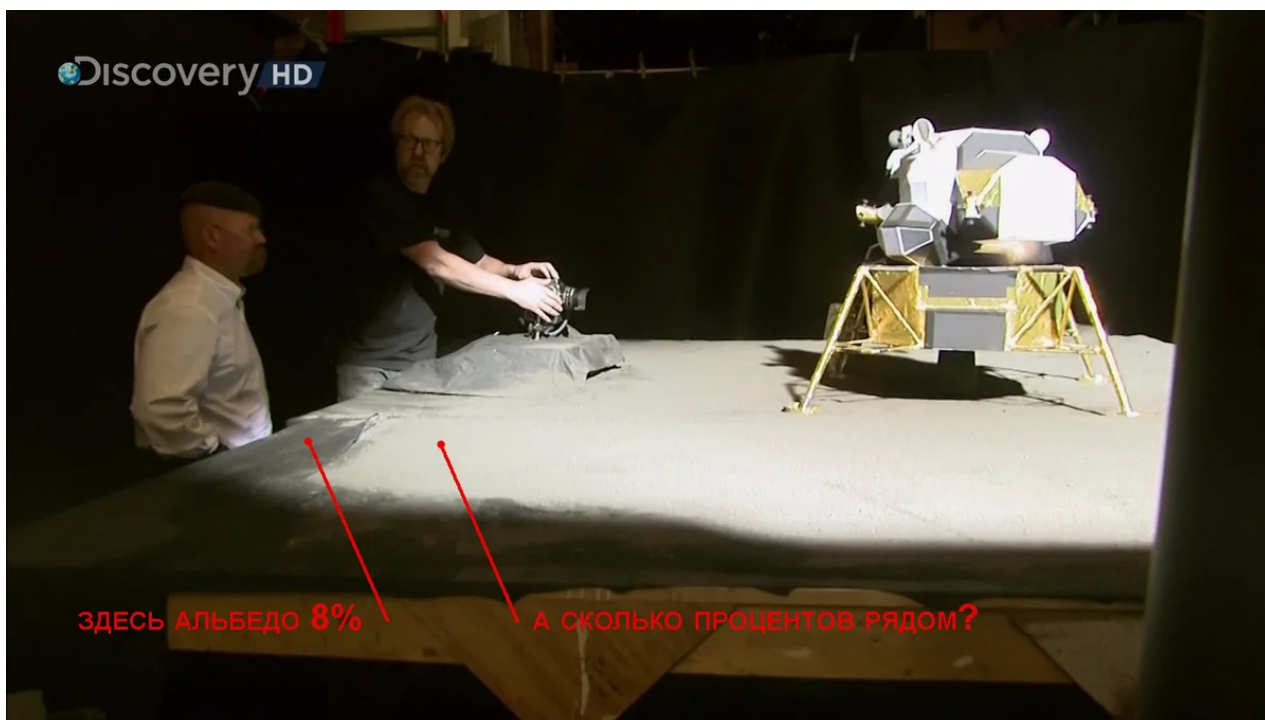
A material with a reflectivity of 8% is selected.

With such a dark "sand", the result on the object should look like this: the lunar dust (3) looks darker than the gray stand under the camera (1) and the side panel (2) on the lunar module. Moreover, points 1 and 2 differ little from each other in brightness.



Moon dust (3) looks DARKER than the camera stand (1) and the lunar module side panel (2).

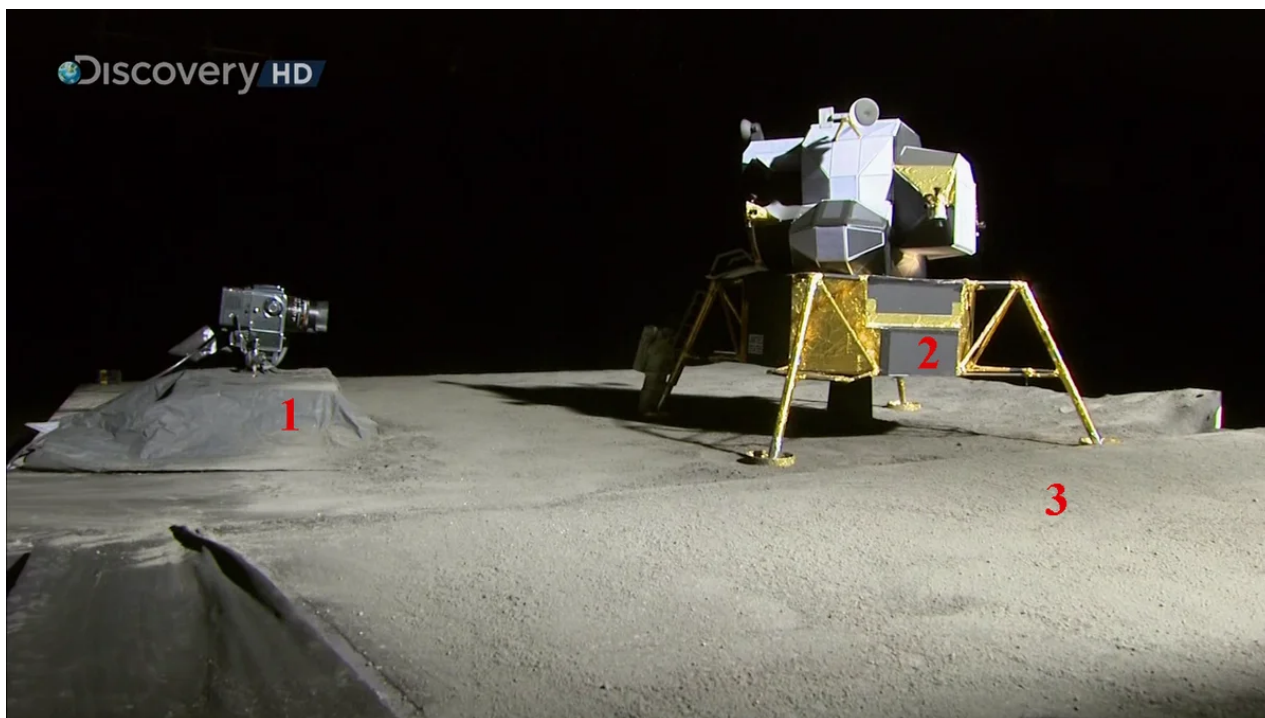
But at the moment when Adam says: " **Let's shoot!**" ("Shoot") and presses the camera shutter button, the entire lunar soil suddenly changes and becomes very light.



The moment of taking a photo frame with an astronaut. The "lunar soil" suddenly brightened sharply.

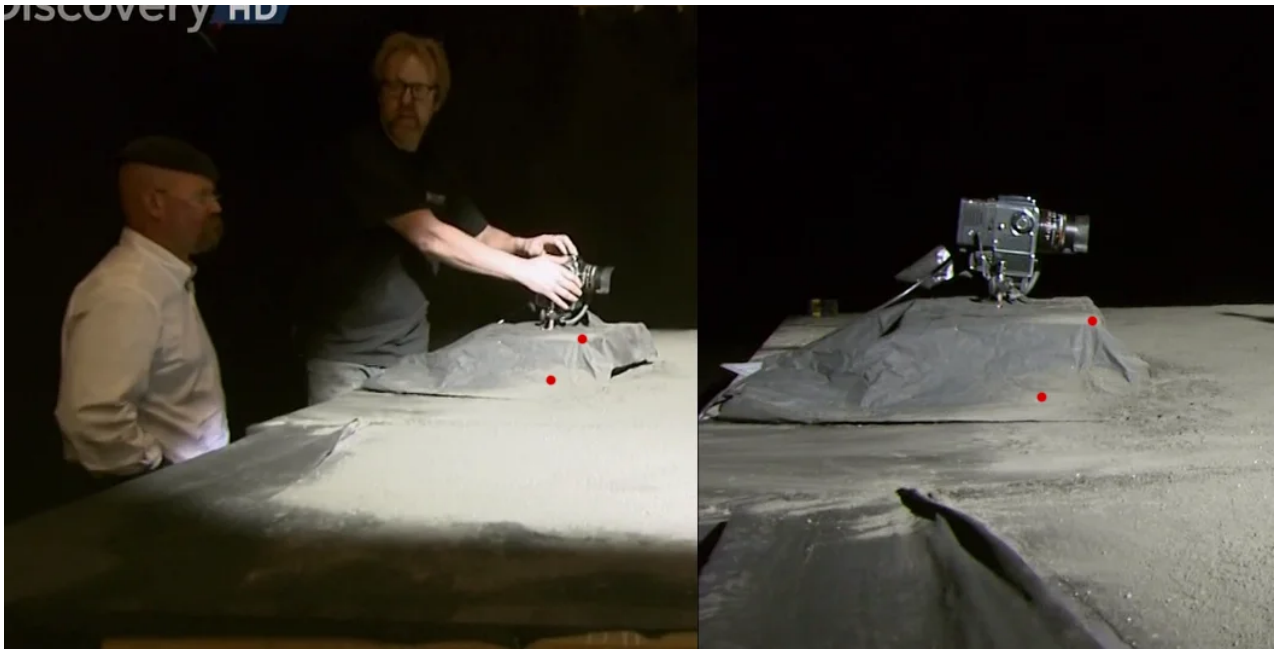
Notice the border of the spotlight in the foreground. A lighter cement was poured inside the cone of light, and a dark one was left outside - they tried to depict the effect of a light circle! Only in the extreme left part (where Jamie stands in a white shirt) they miscalculated ... It can be seen that almost the entire "lunar surface" was made light.

Compared to the previous picture, the angle has changed very little, but the brightness ratio of points 1, 2 and 3 has changed dramatically.



Now "Moon dust" (3) is LIGHTER than the stand under the camera (1) and the side panel of the lunar module (2).

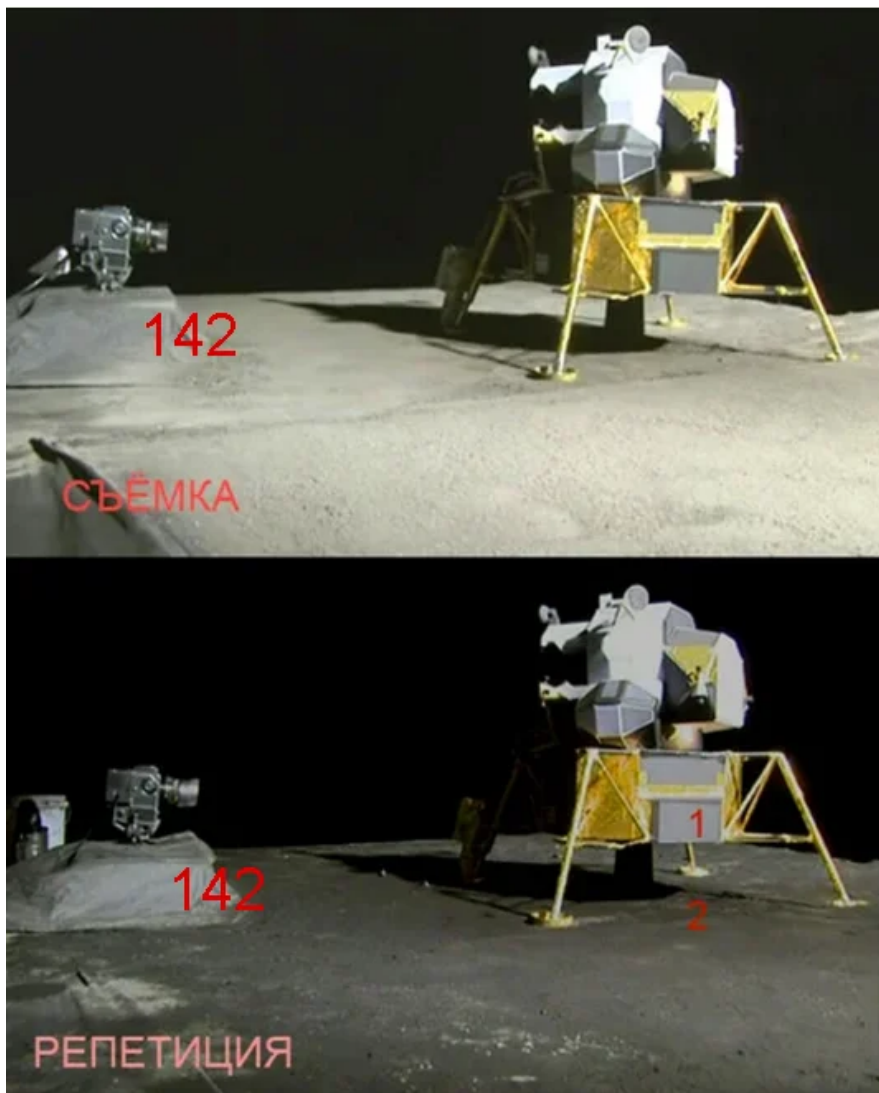
The last two photos were taken at almost the same time. This can be seen from the fact that the applied light dust has gotten onto the gray paper covering the camera stand.



Light dust has gotten onto the camera stand due to carelessness in several places. And below it remained dark.

Compare two frames with the lunar module: one belongs directly to the very moment of shooting (-Are you ready? Then shoot!), And the other frame, very similar in perspective, is when the surface was covered with dark "regolith". I resized these two frames a little to make it easier to compare and equalize in brightness, so that the gray stripes on the layout in two frames were approximately the same, and so that the gray stand under the camera would have the same brightness. 142 - this value will be shown by Photoshop, if you poke at this place with an eyedropper.

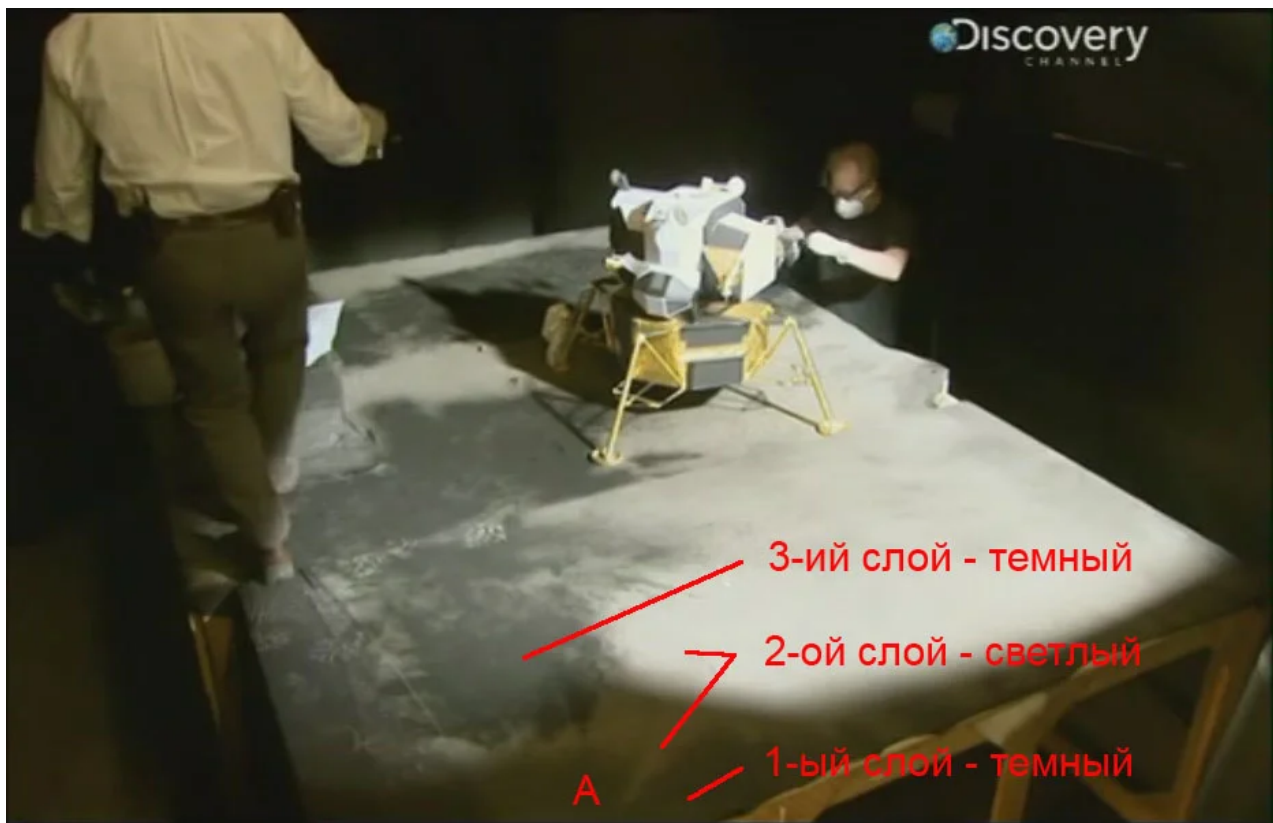




The two frames are luminance-aligned on the stand.

This is how the "myth destroyers" deceive us. First, they took a picture of a toy astronaut with dark "sand". But the intended result did not work out. Then they urgently changed the entire "lunar soil" to a light one and again made a new picture.

And then they began to show how this light soil is covered with a dark composition (cement with coal). And we clearly see three successively applied layers. Note the protrusion "A".



Three different layers simulating "lunar soil".

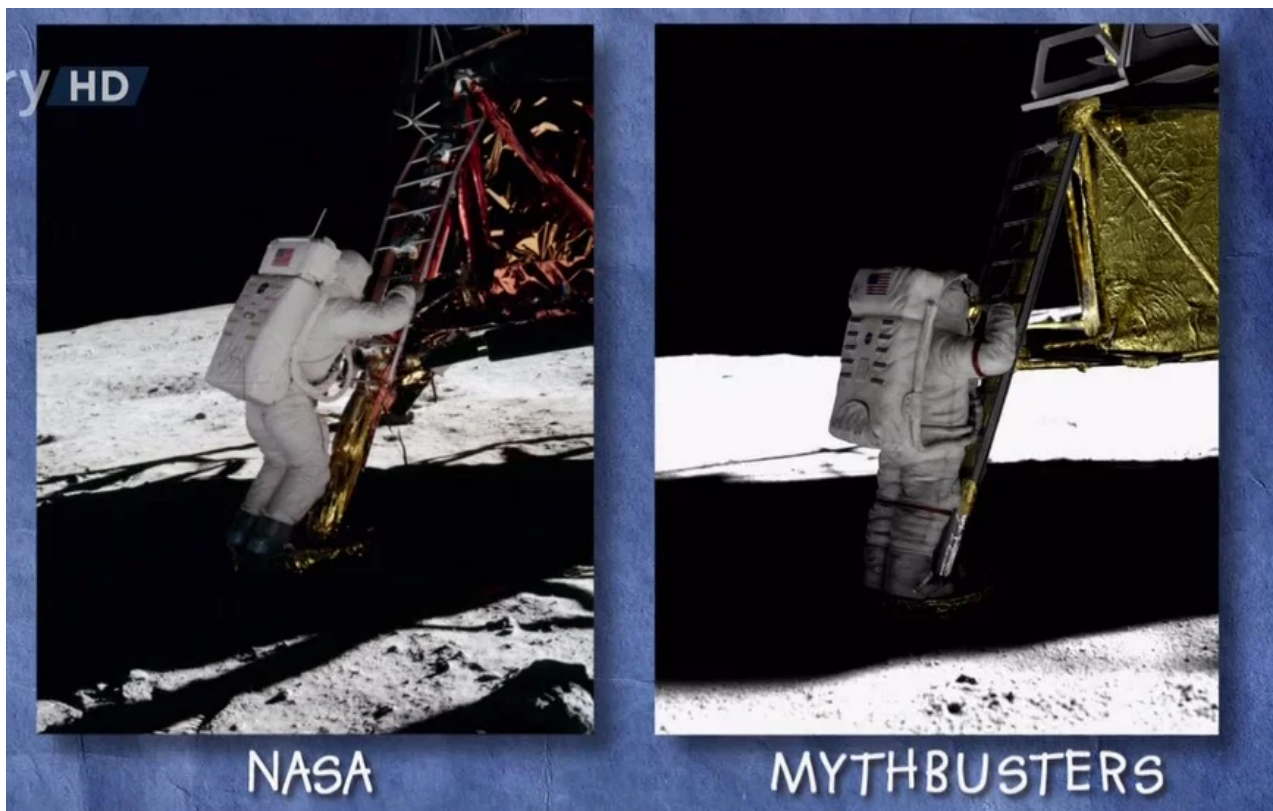
Here it is, the same ledge (A), at the time of photographing. And this layer has not yet been covered with a dark mixture!



There are two layers of "moon sand" so far.

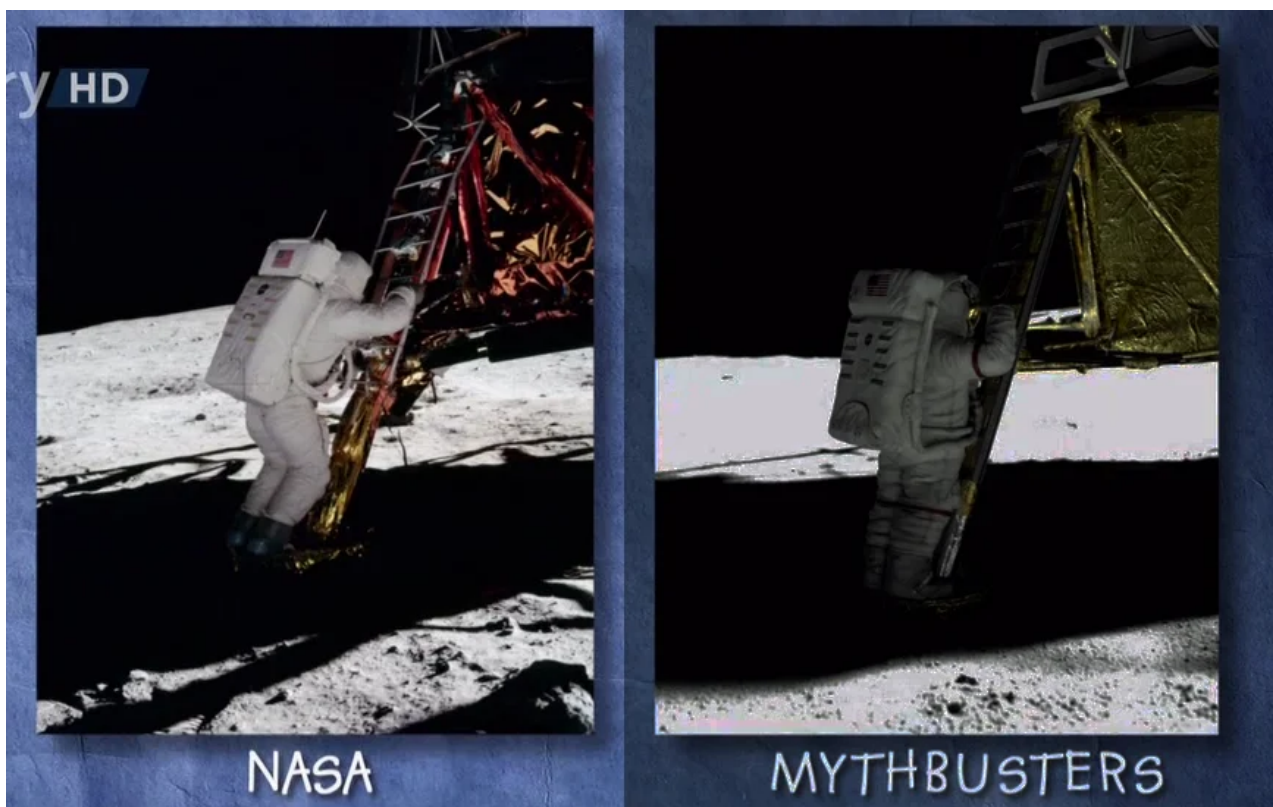
The platform was covered with a dark mixture AFTER the photo was taken!

But even with all these falsifications, the "myth destroyers" did not manage to get an astronaut figure as bright as that of NASA. The "destroyers" have both the staircase darker and the astronaut darker, but the background behind the astronaut, on the contrary, turned out to be too light, even the texture there disappeared.



Comparison of two pictures.

If you darken the right image so that the background is the same brightness as that of NASA, the astronaut figurine will begin to fade into darkness.





If the background in the right image is the same brightness as that of NASA, the astronaut will begin to go into darkness.

These are the falsifiers, these "myth destroyers". They say one thing in words, but do something completely different. They say that the lunar soil should be dark, and immediately make it light. They say that they have one source of light in the pavilion (a spotlight), but in fact they leave fluorescent lamps on under the ceiling. They say that they managed to get the same image as NASA, but in fact they did not succeed.

**The Mythbusters failed to prove that an astronaut in the shadow of the lunar module could be as brightly lit as in NASA's Apollo 11 photograph. Despite all the tricks and manipulations, the astronaut in the "destroyers" experiment is still lost in the shadows. What is the conclusion from this? There was no way a NASA photograph could have been taken on the moon with a single light source, which is the sun. Such a bright figure of the astronaut in the shadow was due to the fact that the shooting was carried out in the pavilion, where NASA used additional sources of scattered light to illuminate the shadow areas.**

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Until next time!



Cameraman L. Konovalov was with you